

PATENT  
0760-0248P

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: Shoji TSUJI et al. CONF: 9310  
APPLN. NO.: 09/101,132 GROUP: 1655  
FILED: June 30, 1998 EXAMINER: J. GOLDBERG  
FOR: cDNA FRAGMENT OF GENE CAUSATIVE  
SPINOCEREBELLAR ATAXIA TYPE 2

TECH CENTER 1600/2900  
OF

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**REPLY UNDER 37 C.F.R. § 1.111**

Assistant Commissioner of Patents  
Washington, DC 20231

June 10, 2002

Sir:

In response to the Office Action dated December 12, 2001, the due date for response having been extended three (3) months to June 12, 2002, by petition herein, the following amendments and remarks are respectfully submitted in connection with the above-identified application.

**IN THE CLAIMS**

Please amend the claims as follows:

61 8. (Amended) An isolated nucleic acid comprising a nucleotide sequence that encodes the amino acid sequence of SEQ ID NO: 1 or the amino acid sequence of SEQ ID NO: 1 further

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comprising from 15 to 100 additional glutamine residues between amino acids 166 and 167.

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9. (Amended) The isolated nucleic acid of claim 8, comprising the nucleotide sequence of SEQ ID NO: 1 from residue 49 to 3987 or comprising the nucleotide sequence of SEQ ID NO: 1 from residue 49 to 3987 and further comprising from 15 to 100 repeats of the sequence CAA or CAG between nucleotides 546 and 547.

10. (Amended) An isolated nucleic acid comprising a 2.5 kilobasepair Tsp E1 restriction fragment of human DNA that hybridizes to the nucleotide sequence of SEQ ID NO: 1 under conditions equivalent to 5 x SSC, 1 x Denhardt's solution, 10% sodium dodecyl sulfate, 20 mM sodium phosphate.

11. (Amended) An isolated nucleic acid comprising a 630 basepair Sma I-Apa I restriction fragment of human DNA that hybridizes to the nucleotide sequence of SEQ ID NO: 1 under conditions equivalent to 5 x SSC, 1 x Denhardt's solution, 10% sodium dodecyl sulfate, 20 mM sodium phosphate.

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16. (Amended) A method for genetic screening for spinocerebellar ataxia type 2 comprising:

i) contacting a sample comprising nucleic acid obtained from a subject with a first oligonucleotide of at least 15 nucleotides that specifically hybridizes to SEQ ID NO: 1 between positions 4367 and 622 and with a second oligonucleotide of at least 15 nucleotides that specifically hybridizes to the complement of SEQ ID NO: 1 between nucleotides 1 and 543;

ii) performing a polymerase chain reaction using said sample nucleic acid as a template to obtain a product; and

iii) determining the length of said product;

wherein a finding of a length of said product indicating the presence of more than 35 triplets in the portion between nucleotides 544 and 622 indicates a predisposition to spinocerebellar ataxia type 2.

17. (Amended) The method of claim 16, wherein said first oligonucleotide comprises the nucleotide sequence of SEQ ID NO: 7 or SEQ ID NO: 8.

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18. (Amended) The method of claim 16, wherein said second oligonucleotide comprises the nucleotide sequence of SEQ ID NO: 6 or SEQ ID NO: 10.

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Attached hereto is a marked up version showing the changes made to the application by this Reply.

REMARKS

The Office Action of December 12, 2001, presents the examination of claims 8-11, 14, and 16-18. Claims 8-11 and 16-18 are amended. No new matter is inserted into the application.

*Claim Objections*

The Examiner objects to claims 8-11, 14, and 16-18 for containing more than one period. In response to the Examiner's remarks, Applicants amend the claims to remove the extraneous periods, as suggested by the Examiner. Thus, the instant objection is overcome.

*Rejection under 35 U.S.C. § 112, second paragraph*

The Examiner rejects claims 16-18 under 35 U.S.C. § 112, second paragraph for allegedly being indefinite. Applicants respectfully traverse. Reconsideration of the claims and withdrawal of the instant rejection are respectfully requested.

Specifically, the Examiner asserts that the claims should be drawn to a method of screening for SCA2, rather than SCA, since there are many SCA diseases. In response to the Examiner's remarks, Applicants amend the claims to recite a method for

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screening for SCA2, as suggested by the Examiner. Thus, the instant rejection is overcome.

### ***Double Patenting***

The Examiner rejects claims 16-18 under the doctrine of obviousness-type double patenting over claims 1-8 of U.S. Patent 6,251,589. Applicants respectfully traverse. Reconsideration of the claims and withdrawal of the instant rejection are respectfully requested.

A Terminal Disclaimer over U.S. Patent 6,251,589 was filed in the present application on December 7, 2001. A photocopy of a postcard acknowledging receipt thereof by the United States Patent and Trademark Office is attached hereto. Apparently, the Terminal Disclaimer was not associated with the file at the USPTO before the Office Action dated December 12, 2001, was mailed. In any event, Applicants respectfully request that the Examiner consider the Terminal Disclaimer already filed and make it of record in the present application, so that the instant rejection is overcome.

### ***Conclusion***

Applicants submit that the pending claims should now be found in condition for allowance.

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If there are any minor matters precluding allowance of the application which may be resolved by a telephone discussion, the Examiner is respectfully requested to contact Kristi L. Rupert, Ph.D. (Reg. No. 45,702) at (703) 205-8000.

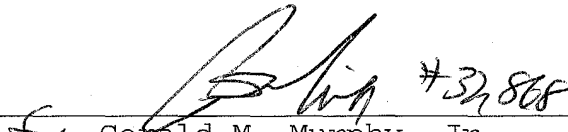
Pursuant to the provisions of 37 C.F.R. §§ 1.17 and 1.136(a), the Applicants hereby petition for an extension of three (3) months to June 12, 2002, in which to file a reply to the Office Action. The required fee of \$920.00 is enclosed herewith.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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By

  
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ATTACHMENTS:

POSTCARD RECEIPT OF TERMINAL DISCLAIMER  
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